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REFER TO FILE NO. 1234-28-8-3

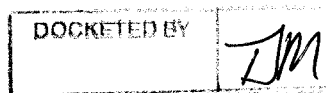
May 15, 2012

Arizona Corporation Commission

DOCKETED

MAY 16 2012

Docket Control  
Arizona Corporation Commission  
1200 W. Washington St.  
Phoenix, Arizona 85007



Re: *Mohave Electric Cooperative Customer Education Programs on AMI Metering;*  
*Docket No. E-00000C-11-0328*

Dear Sir/Madam:

The following comments are provided by Mohave Electric Cooperative, Inc. ("Mohave") regarding Mohave's Customer Education Program on AMI Metering.

Mohave was included in comments filed collectively on behalf of the Cooperatives by Grand Canyon State Electric Cooperative Association. Mohave is supplementing the Cooperatives' comments to provide comments and positions on issues or proposed rule changes in this docket to address Mohave's unique circumstances.

**Background**

Mohave, with the encouragement of federal and state regulators, began installing Advanced Meter Infrastructure ("AMI") devices in November 2010 because of the benefits and cost savings to their members. Mohave's AMI meters communicate through Power Line Carrier ("PLC") and do not use radio frequency. All meters historically, and AMI meters currently, produce electric quantity and quality data and do not collect personal data beyond the utility meter. These comments will briefly discuss Mohave's comprehensive historical and on-going customer education efforts on AMI meters. Mohave's specific customer education efforts are attached to these comments. Mohave's broad and frequent customer education efforts have resulted in an educated customer base and the receipt of few complaints or expression of concern from Mohave members about deployment of AMI meters. Mohave has also received letters from members in support of AMI. Copies of these letters in favor of AMI are also attached.

Mohave currently has 31,000 AMI meters installed, or 89% completed. The remaining 4,000 meters will be installed by the end of 2012.

### **Customer Education Programs on AMI Meters**

Mohave developed and began immediate implementation of its member education program on AMI metering in June 2010, six months before beginning any meter exchanges. Member education efforts are ongoing and updated in response to member questions. Generally, these education programs have included AMI articles in newsletters, bill inserts, web-site education and Q&A regarding AMI, AMI presentations and booths at cooperative annual meetings, press releases, separate mailed letters, community discussions, and demonstrated support by Mohave management and staff in direct individual communication with members.

Since the March 23, 2012 ACC Open Meeting, Mohave has continued its AMI education efforts by providing more and updated AMI education by all the methods described above. Mohave has four member meetings scheduled for the summer of 2012.

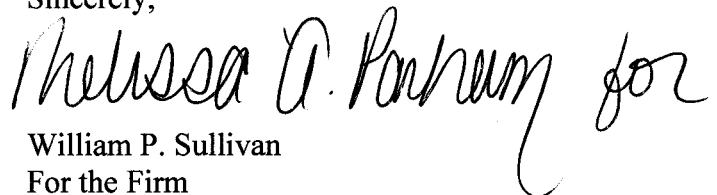
### **Conclusions**

Mohave developed and began immediate implementation of its member education program on AMI metering in June 2010, and began meter exchanges in November 2010. Mohave's AMI meters use PLC communications not radio frequencies. These AMI investments have been encouraged by state and federal regulators to improve the quality of and lower the cost of service for all members.

We urge the Commission to consider the results of Mohave's AMI customer education programs in effectively limiting and resolving the number of customer complaints that Mohave has received regarding AMI meters.

Given the misunderstanding and misinformation that is evident from the public comments in this docket, Mohave respectfully suggests the Commission focuses on ensuring AMI customer education programs, similar to what has been implemented by Mohave, rather than focusing on an opt-out policy.

Sincerely,

  
William P. Sullivan  
For the Firm

Original and thirteen (13) copies  
filed this 15<sup>th</sup> day of May, 2012,  
with Docket Control.



# MOHAVE ELECTRIC COOPERATIVE

**Mohave Electric Cooperative**

**AMI Meter Exchange  
Member Communications Program**

**May 27, 2010 to present**



***May 27, 2010***  
**Initial Communication Planning**  
**Meeting**

Action Item: Develop Communication Plan and Schedule in conjunction with November 1 start date for meter exchanges.

# June 10, 2010

Communication Plan ready and implementation in progress.

✓	<b>Monthly- In Progress</b>	<b>Monthly Newsletter</b>
✓	1-Sep	FAQs
✓	September 15-30, 2010	MEC Employee Assembly/ Department Meetings
✓	By Oct 1 with Updates by Substation	MEC Website
✓	1-Oct	Press Release:
✓	1-Oct	Billing Communication (insert in bill)
✓	1-Oct	Separate Letter Mailout
✓	1-Oct	Law Enforcement Notification
✓	1-Oct	Leave Behind
✓	1-Oct	Authorization Letter for Install Contractors
✓	1-Oct	Name Badges for Install Contractors
✓	Material ready By Oct 1 - Ongoing	Community talks by MEC Mgt



# MOHAVE CURRENTS

Connecting our Community! JUNE 2010

## IMPROVING OUR FUTURE

*Fresh, new look for [mohaveelectric.com](http://mohaveelectric.com)*

Mohave Electric's newly improved and more contemporary website is now available with features that will allow members the opportunity to access information quickly and easily. Members will be able to retrieve forms online, view energy efficiency tips and programs, submit questions online and access our monthly Currents Newsletter. The two-phase project has been launched with a new design and format.

The 2nd phase of the project with expected completion in fall 2010, will incorporate member account information into the site allowing more convenience and flexibility for member account access including online bill payment. Not only are we always looking for ways to help our members use energy more efficiently, we are also looking for ways for members to manage their usage more conveniently and more effectively. Stayed tuned for more information.

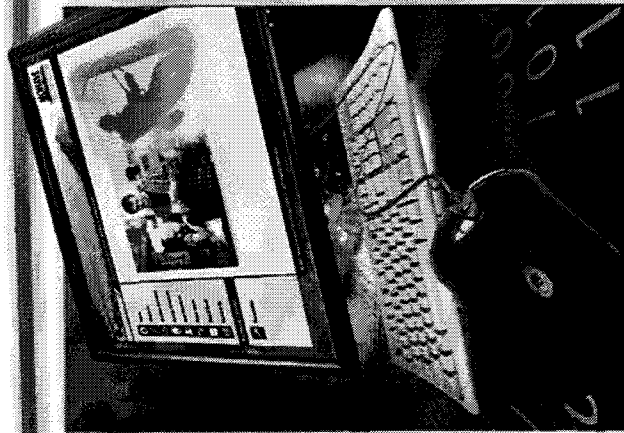
### *You asked. We listened.*

Beginning September 2010, Mohave Electric will also be updating our billing process with a new and improved billing statement. New features will be incorporated into the statement giving members more information about their energy usage.

The new statements will include detail for the current month as well as previous month's detail. A yearly graph will display monthly usage so members can compare their overall usage at a glance.

### *Smart Grid Technology*

The first step toward a better future has begun. Thanks to an ARRA Grant from the U.S.



Department of Energy, Mohave Electric is moving forward with plans for Smart Grid improvements. Communication infrastructure for the Smart Grid project will begin this summer laying the foundation for a two-way flow of information between the co-op's system and its call center.

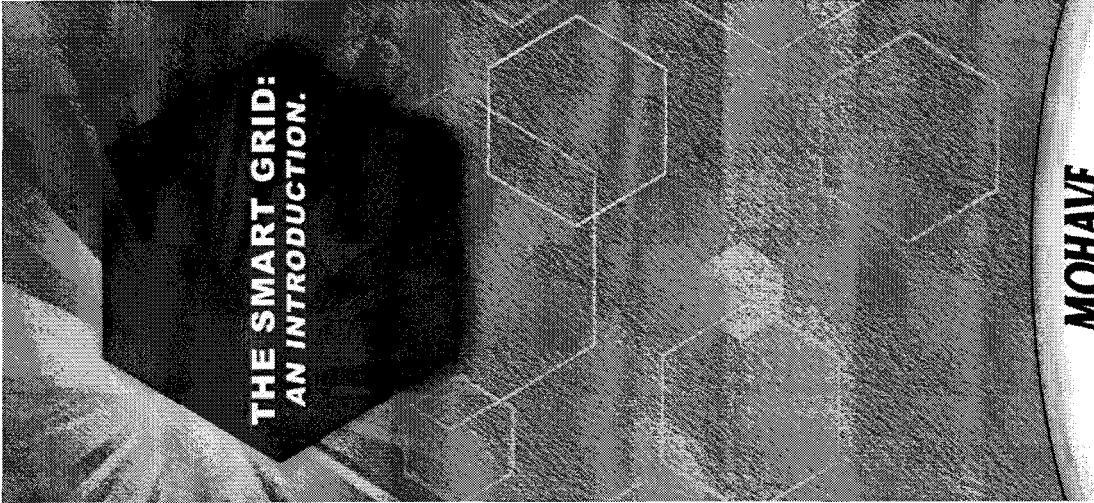
The project is a long-term endeavor that will improve system reliability by providing more accurate data and eventually may include enhanced services to members.

Smart Grid Technology implementation is expected to bring six million dollars of additional economic development activity to our local community.

Watch for more news about Mohave's website, improved member account information, and Smart Grid.

# June 2010

## Newsletter article mailed as bill insert



*Helping members use energy wisely!*

**What is Smart Grid?**... Smart Grid is a modernization of the nation's network of energy generation, transmission, and distribution systems that delivers electricity to consumers. America's electric power infrastructure has served us well for many decades, but is now reaching its limitations. Smart Grid will help power companies continue to deliver the level of service and reliability we've come to expect.

Full implementation will evolve over time; however, many positive steps are being taken today. Each utility, including investor-owned, cooperative, or public, has its own implementation plan depending on the provider's size and location, existing infrastructure, and available resources.

Mohave's Smart Grid will use enhanced data, communication, and digital technology for improved energy management which allows Mohave to operate more efficiently due to the precise data it provides. Consumers may not fully be aware of the benefits but J. Tyler Carlson, Mohave Electric CEO explains, "Smart Grid gives us the data to help our system operate more efficiently and effectively on behalf of our members." Managing operations and maintenance costs effectively helps keep costs down. Communication provided by the system allows optimized power flows, reduced loss, maximization of resources, and faster response to outages. This will benefit members indirectly.

It may be difficult for members to envision the Smart Grid's ultimate value during its building phase but an improvement in the billing process will be evident in September. The new customer information system will give members access to detailed account data allowing an active role in managing their energy usage. Enhanced features for members will include our new billing system featuring electronic billing. Bill paying will be easier and more convenient. Consumers want to have as many tools and choices as possible to manage their energy usage and energy bills. Mohave's first step in improving member services begins with the synergy of Smart Grid and the Customer Information System. More enhanced services may be available in the future.

Will Mohave's Smart Grid improvements and plans raise rates? No. An ARRA Grant from the U.S. Department of Energy has substantially reduced Mohave's investment, making it possible to move forward with our Smart Grid technology and implementation.

Mohave's Smart Grid improvements are an investment in the future that will take place as a long term process. The first step in the installation of Smart Grid, is laying the foundation of the communication infrastructure and the groundwork for an intelligent monitoring system that provides faster and more accurate system information. Mohave's Smart Grid improvements will begin this summer. Keep your eyes open for future progress and updates.



*Helping members use energy wisely!*

# July 2010

## Bill insert

# "The Smart Grid: An Introduction"

## *September 2010*

- Newsletter article mailed as bill insert
- Employee meetings
- MEC Website
  - FAQ's
  - AMI meter brochure
  - News Releases on Smart Grid and AMI meters
  - Meter exchange schedule
- Ongoing meetings with various community organizations and groups



# September 2010

## CURRENTS

SEPTEMBER 2010



In partnership with the Bullhead City Police and Fire Departments, Mohave Electric Cooperative joined forces with thousands of communities nationwide for "America's Night Out Against Crime." The evening was an opportunity for the community to support law enforcement officers and fire fighters in their efforts to fight crime.

More than 200 area residents enjoyed the 12th annual National Night Out Block Party hosted by Mohave at our Customer Service Office on August 3, 2010. Tyler Carlson, Mohave CEO said, "We are proud to join forces to strengthen police and community partnerships in crime prevention and drug awareness."

Children enjoyed face painting with "Shelley the Clown," collected goodies from numerous NNO participants and learned important safety messages from police and fire department personnel.

We appreciate the support of the many generous local businesses that demonstrated their community spirit by donating door prizes for this event to promote awareness, safety and neighborhood unity.



Helping Members Use Energy Wisely!

### THE SMART GRID: A STEP CLOSER.

Mohave's Smart Grid implementation is in motion with the installation of new communication infrastructure. Smart Grid will use enhanced data, communication, and digital technology for improved energy management allowing Mohave to operate more efficiently.

The co-op's call center has been modernized to accommodate the equipment necessary to process the enhanced data Smart Grid will provide. This will allow the call center to process information more expeditiously.

Tyler Carlson, CEO explains, "Smart Grid will give us the data to help our system operate more efficiently. Managing operations and maintenance costs effectively helps keep costs down and that helps members."

Communication provided by the system allows optimized power flows, reduced loss, maximization of resources, and faster response to outages.

Visit our website at [www.mohaveelectric.com](http://www.mohaveelectric.com) for Smart Grid updates.



ABOUT US MEMBERS SERVICES ENERGY SOLUTIONS COMMUNITY BOARD ROOM FILL CURRENTS

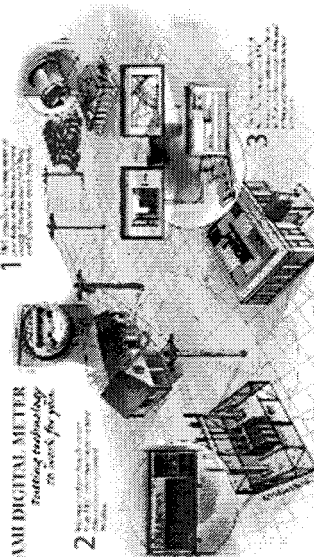
## SMART GRID

- Smart Grid will give us the data to help our system operate more efficiently.
- Smart Grid will give us the data to help our system operate more efficiently.
- Smart Grid will give us the data to help our system operate more efficiently.
- Smart Grid will give us the data to help our system operate more efficiently.

### AMT DIGITAL METER

Enabling technology to work for you.

1. The meter is installed on the service line. 2. The meter is connected to the communication line. 3. The meter is connected to the power line.



### ADVANCED METERING INFRASTRUCTURE

Advancing our current technology.

1. The meter is installed on the service line. 2. The meter is connected to the communication line. 3. The meter is connected to the power line.

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Attachment	Size
Mohave Electric Smart Grid 10/19/2010	91.82 KB
Mohave Electric Smart Grid 10/19/2010	235.78 KB
Mohave Electric Smart Grid 10/19/2010	3.02 MB

# AMI Digital Meters – Facts and Fiction

## AMI Digital Meters—Facts and Fiction

### Why did Mohave Electric Cooperative begin installing Advanced Metering Infrastructure (AMI) Digital meters?

Our goals in installing new AMI digital meters are to deliver better service, control rising operating expenses, improve system reliability through improved outage management and preventive maintenance, and provide the infrastructure necessary to offer optional cost reducing rate programs required by the Arizona Corporation Commission (ACC).

### What's the difference between the new AMI meter and the old meter?

The new AMI meters are electronic and the old meters are mechanical. The new meters will still display the meter reading, but it will be in a digital LED form.

Mohave's AMI Meters communicate using a wired system through the power lines. No wireless AMI Meters are installed.

### The AMI system does what your existing meter does with two exceptions:

- It no longer transmits the information wireless and instead uses a wired system (through the power lines) to send the meter reading of electric usage to MEC.
- It allows remote meter reading, of aggregate electric usage, from a longer distance than the existing meters.

The new MEC digital AMI meters do not collect any additional member energy information different from the existing meters or metering system that are already in place, the new meters are just more efficient and accurate.

### Do the new meters emit radio signals?

No, the meters that Mohave Electric is installing do not use radio, wireless, pulsed microwave or cellular communications. The meters communicate through the power lines, in other words they are hard wired and are NOT wireless.

AMI Digital Meters replace "old" meters which emitted a wireless signal. Mohave's use of a wired AMI technology is eliminating radio emissions that were associated with the older style meters.

### Have the new AMI meters been tested?

The metering products MEC selected underwent testing by an accredited lab and passed all Federal Communication Commission (FCC) Class B certifications. This is the same testing that is required for any electronic device used in the proximity of any residential user or residential environment. This Test Report is available upon request

# AMI Digital Meters – Facts and Fiction

What are the benefits of AMI for the Cooperative and Co-op members?  
The AMI has numerous member benefits over analog technology:

Improved meter reading accuracy—provides meter reading automatically, transmitted over the power lines, and records the reading directly into the billing system.

Faster response to outages—substation communication equipment helps pinpoint areas affected by an outage.

Improved synergy with Mohave's customer information and billing systems.

Helps deter power theft—benefits all members by reducing the potential for costly power thefts.

Enhanced data communication helps the Co-op manage its system operations more effectively  
In the future may also help members have more choices to manage their own energy usage

Can Mohave Electric tell which appliances are operating, or tell whether or not I am home, since installing the new meters?  
No, contrary to some recent internet publicity, MEC cannot tell whether you are at home or whether you are watching television, cooking, washing clothes or any other activity that you might do in your home.

The meters and the installed support AMI system as designed and constructed simply will not, and cannot in the future, be made to monitor, collect or control what any member does with electricity inside the home.

Will my consumption information, or activities at my home be shared with the government or other organizations?  
MEC takes the matter of your privacy and the integrity of your property very seriously. Mohave Electric Cooperative does not share its members' data or sell information to any third party and abides by stringent policies protecting the privacy and security of your electric usage data.

We are not part of any government agency, but are strictly governed by our board of directors (who are members) and are elected by you, the membership.

The meters do not video any activity at, or within, the home, nor report any information to outside entities.

Can the AMI meter, or MEC, turn my air conditioning or my appliances on and off?  
No. The meters as designed will not, and cannot in the future, be made to control your appliances or equipment.

# AMI Digital Meters – Facts and Fiction

**Who owns the electric meter?**

The new meters, just like the old ones are the property of Mohave Electric Cooperative.

**Will my meter reader lose his job?**

No. Although the new meters will be read automatically, they will still need to be inspected, monitored and serviced. As a result you will still see a meter technician from time to time.

**When will the meters be changed?**

Meter exchanges began in November 2010 and will continue until 34,000 meters are installed.

**How will MEC communicate the meter exchange schedule to members?**

Members will be notified by mail a month prior to installations in their area. In addition, members will also receive a phone call a few days prior to installations. Updates will be published in the Mohave Valley Daily News and available on MEC's website at: [www.mohaveelectric.com](http://www.mohaveelectric.com). Click the Smart Grid/AMI Digital Meters Quick Link.

**Who will be changing the meters?**

Our crews will be installing the new meters. They will be in vehicles marked with the Mohave Electric logo and will have a photo ID. Meter technicians will be working from 8:00 am to 4:30 pm Monday through Friday.

**Will I be notified the day of my meter exchange?**

A meter technician will knock on the door to let you know that they are there to install your new meter, but you do not need to be present for the meter change.

**Will the meter technician need access to my home or business?**

No. Anyone asking to come into your home, or without Mohave Electric authorized credentials should be reported to law enforcement.

**How can I, as a member, help in this process?**

MEC needs your most current contact information—mailing and service addresses, email, telephone, cell phone, and other information. You should clear an adequate work area around your electric meter to give the technician ready access to the meter. It is your responsibility to remove any obstructions or barriers that will prevent our installation.

**Will my power be shut off when they change my meter?**

Yes, in order to change the meter, there will be an interruption period of just a few minutes during installation.

# AMI Digital Meters – Facts and Fiction

How long will it take for the new AMI Meter to be installed?

A typical single AMI installation will take about 15 minutes. During this time, you will experience a brief power outage as we install the new meter.

Will my billing date stay the same?

Yes. Your billing date will remain the same as it is now.

After I have an AMI Meter, will the new meter notify MEC if the power goes out?

The best way to report an outage is to call MEC.

Who can I contact if I have additional questions?

If you have additional questions about AMI, you may call 928-763-1100 or email us through our website at: [www.mohaveelectric.com](http://www.mohaveelectric.com) and click on "contact us", then select Member Services on the drop-down menu.





P.O. Box 1046, Bullhead City, AZ 86430

# October 2010

(Ongoing)

## Mailing of letter and brochure sent to members as special mailing in phases, approximately one month before meter exchanges scheduled by area

Over the past few months we have been telling you about the Advanced Metering Infrastructure (AMI) system and Mohave Electric's Smart Grid Implementation Plan. The AMI Meters use a wired system to send the monthly meter reading through the power lines, and offer enhanced privacy with no wireless or radio frequency emissions.

These improvements will help deliver better service, control rising operating expenses, improve system reliability through improved outage management and preventive maintenance, and provide the infrastructure necessary to offer optional cost reducing rate programs required by the Arizona Corporation Commission (ACC). You can find out more about the benefits of AMI in the enclosed brochure.

Over the next few weeks you'll be seeing our crews in your area exchanging old dial mechanical meters with new digital AMI Meters. The meter technicians will be in vehicles marked with the Mohave Electric Cooperative logo and will have photo ID. They will knock on your door to let you know that they are there to install your new meter, but you do not need to be present for the meter change.

When your existing meter is removed there will be a brief interruption to the power at your home or business. During this process we will encounter a small percentage of electrical services that do not comply with National Electric Code standards. If your service falls into one of these categories, we will contact you.

The meter technician will not need access to your home or business other than to the electric meter location. Anyone asking to come into your home, or without Mohave Electric authorized credentials should be reported to law enforcement.

Meter exchanges began in November 2010 and will continue into 2012 until 34,000 meters are installed. For updates, visit [www.mohaveelectric.com](http://www.mohaveelectric.com) and click the AMI Meters Quick Link.

If you have additional questions, please contact our Customer Service Department at 928-763-1100.

Thank you.

MOHAVE ELECTRIC COOPERATIVE

## AMI DIGITAL METER

*Your meter is going high-tech!*



**MOHAVE**

electric cooperative  
A Touchstone Energy® Company

[www.mohaveelectric.com](http://www.mohaveelectric.com)

# October 2010

(Ongoing)

## Included in mailing

# October 31, 2010

## Press release to local media describing Smart Grid and AMI meter exchanges

A6 ■ SUNDAY, OCTOBER 31, 2010

BUSINESS

MOHAVE VALLEY DAILY NEWS

### Grant helping MEC upgrade technology

CONTRIBUTED

**BULLHEAD CITY** — An American Recovery and Reinvestment Act grant from the U.S. Department of Energy is helping Mohave Electric Cooperative move forward with Smart Grid improvements. Smart Grid is a modernization of the nation's network of energy generation, transmission and distribution systems that deliver electricity to consumers.

The grant has substantially reduced MEC's investment, making it possible to use new technology to improve service and reliability in the future.

Mohave's Smart Grid plan includes enhanced data, communication, and digital technology that when implemented, will improve system operations by capturing and communicating more precise data.

"Smart Grid gives us better data to manage operations more effectively, which helps our members by keeping costs down, an important priority for the co-op's management and board of directors," said Tyler Carlson, MEC CEO.

Full implementation of the plan will evolve over time. The first step, laying the foundation of the communication infrastructure is well underway, and will be the groundwork for an intelligent monitoring system that provides faster and more accurate system information.

In November, MEC will begin replacing the old, dial mechanical meters with a new "smart meter," which uses a meter technology called Automated Meter Reading (AMR). Smart Grid and AMR technology provide two-way com-

munication over the power lines, eliminating the need for a meter reader to read meters every month.

Members will be notified by mail and also by phone when meter technicians will be installing meters in their area. The full installation of 25,000 meters will take place during the next year.

Advantages of AMR over current technology include improved meter reading accuracy, faster response to outages, improved synergy with MEC's customer information and billing system, and collection of data that can help spot potential trouble spots before they cause an outage. Smart Meters also help deter power theft by sending a notification to MEC's Call Center if a meter is tampered with or moved. This benefits all members by reducing the potential for costly power thefts.

#### Meter installation begins

Mohave Electric Cooperative contractor crews from Chapman Metering are installing new Smart Meters. During the next two weeks they will be working in these areas:

► West of Highway 95 — Colorado Rio Vista to Clubhouse Drive

► East of Highway 95 — North of Ramar Road to Summit Drive; South of Ramar Road including Turquoise Road; north part of Sierra Vista Drive; Loma Vista Road; Quartz Circle; Barranca St.; Agate Circle; and Loma Vista Road.

Chapman Metering technicians will be in vehicles marked with Chapman Metering and the Mohave Electric logo. Meter technicians will have photo ID and a letter authorizing them as agents for Mohave Electric.

For updates on Mohave's Smart Grid, visit [www.mohaveelectric.com](http://www.mohaveelectric.com) and click the Smart Grid button.

# November 2010 – March 2011

## Phase I

Ongoing notification of meter exchange working areas published in local newspaper

### MEC continues installing new meters

#### CONTRIBUTED

**BULLHEAD CITY** — Mohave Electric Cooperative crews are installing new Advanced Metering Infrastructure meters in Bullhead City and Fort Mohave.

Meter technicians will be working in the following areas for approximately four weeks:

- West of Highway 95 from Sterling Road, south to Aztec Road in Fort

Mohave.

- South from Aztec Road to Boundary Cone Road on both sides of Highway 95 in Fort Mohave.

- Scattered installations throughout Bullhead City

The meter technicians will be in vehicles marked with the Mohave Electric Cooperative logo and will have photo ID. They will knock on your door to let

you know that they are there to install your new meter, but you do not need to be present for the meter change.

The meter technician will not need access to your home or business other than to the electric meter location. Anyone asking to come into your home, or without Mohave Electric authorized credentials, should be reported to law enforce-

ment. For updates on Mohave's Smart Grid, visit [www.mohaveelectric.com](http://www.mohaveelectric.com) and click the Smart Grid button.

# November 2010 – March 2011

## Phase I Meter Exchanges

Notification by phone call delivered 3 -7 days before exchange

*This is an important message from Mohave Electric Cooperative about your new electric meter. Mohave Electric is in the process of replacing old, dial mechanical meters with new digital meters. We will be working in your area during the next two weeks. When we change the meter, your power will be briefly interrupted, but will be restored in a matter of minutes. Meter technicians will have ID authorizing them as employees for Mohave Electric. If you have any questions about this process, please call Mohave Electric at 928-763-1100.*





# *Day of Meter Exchange*

Meter technician  
knocks on door to  
notify member that  
he is there to  
exchange the meter





# CURRENTS

Connecting our Community! DECEMBER 2010

## Putting Technology To Work For You!

Mohave Electric Cooperative crews from Chapman Metering are now installing new Smart Meters. You can help us by making sure we have your most current contact information, including mailing address, if it's different from the service address, and also the best phone number to reach you.

For more information on the advantages of Advanced Metering Infrastructure (AMI) and Smart Meters, as well as Smart Grid updates, visit [www.mohaveelectric.com](http://www.mohaveelectric.com) and click the Smart Grid button.

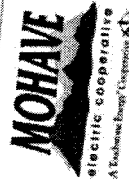
SMART GRID

## Start the New Year by Saving Money

Beginning January 1st, the Co-op Connections program will give you discounts on products and services from participating local and national businesses.

Watch for your Co-op Connection card in a separate mailing around the first of the year. For more information, visit our website at: [www.mohaveelectric.com](http://www.mohaveelectric.com).

Co-op Connections Card

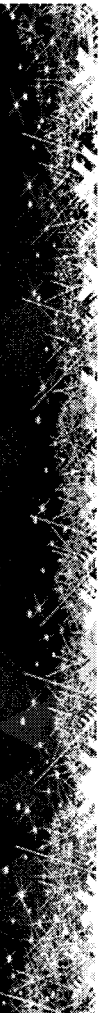


## Holiday Energy Savings Tip

Save energy during the holidays by using ENERGY STAR qualified LED holiday lighting instead of traditional incandescent light strands. LEDs use up to 95% less energy!



Mohave Electric Cooperative wishes you, our members, a safe & happy holiday season!



# December 2010

## Newsletter article mailed as bill insert



News &gt; Local

## Meter readers will be retained to perform other duties, MEC official says

By NEIL YOUNG/The Daily News

Published: Sunday, January 2, 2011 10:48 PM MST

[Print Page](#)

BULLHEAD CITY — Mohave Electric Cooperative's "Smart Meter" project continues. MEC is replacing its meters in Bullhead City in two phases. So far, approximately 6,000 new meters have been installed, according to Peggy Gillman, MEC manager of public affairs and energy services.

The old, dial mechanical meters are being replaced by a new meter technology called Automated Meter Reading (AMR). Smart Grid and AMR technology provide two-way communication over power lines.

It will be no longer necessary for MEC employees to read meters on site. "Meter readings are loaded into the Customer Information System automatically by the Advanced Metering Infrastructure equipment and normally are called up once a month to coincide with the member's billing date," Gillman said.

Meter readers will be retained to perform other duties, Gillman said.

Smart meters will:

- Improve meter reading accuracy by recording information directly into MEC's billing system
- Record power outages
- Improve response to outages by helping to pinpoint areas affected by the outage
- Confirm power restoration, by sending verification back to the call center that power has been restored
- Help deter power theft by sending a notification if a meter is tampered with or moved

The information will flow continuously from the meter to a substation with data collection equipment, which will help MEC analyze energy usage, outage data, and voltage information to better serve members.

"The plan has evolved over time with extensive development and engineering over the last 18 months," Gillman said.

MEC's time line for Smart Meter installations:

- In August, communication infrastructure was installed, with enhanced data communication equipment placed at substations and MEC's customer call center.
- In November, a phased Smart Grid meter exchange began.
- In mid-March, phase one will end with a total of 15,000 meters exchanged.
- In April, installation of substation monitoring equipment will begin and continue over the next few months.
- In November, phase two of the meter exchanges will begin, in which 10,000 meters will be switched.
- In February 2012, phase two will be completed.

"Future phases will be scheduled into the work plan until the majority of Mohave member meters are exchanged," Gillman said. "We anticipate beginning the final meter deployment late 2012. Deployment of new meters is conditioned on the expansion of the communication infrastructure. The early phases of deployment used the existing infrastructure with the later deployment predicated on the new communication expansion."

# January 2, 2011

## Article about meter exchanges published in local newspaper

### Smart Grid Update

The first phase of Mohave's "Smart Meter" project is nearly complete with 15,000 of the old, mechanical dial meters being replaced with new meter technology called AMI, Advanced Metering Infrastructure. The new meters will provide two-way communication over power lines improving meter reading accuracy and recording information directly into MEC's billing system.

Information from Smart Meters flows continuously to a substation with data collection equipment that allows MEC to better analyze energy usage, outage data, and voltage information to better serve members.

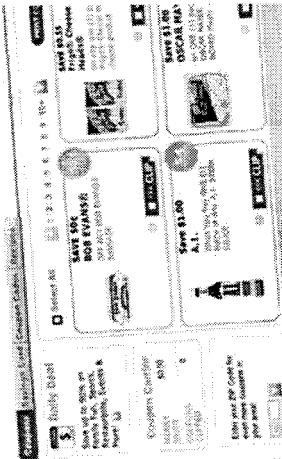
Phase two of the meter exchanges will begin November 2011 and scheduled for completion February 2012. Future phases will be scheduled into the work plan until the majority of Mohave member meters are exchanged. Deployment of new meters is conditioned on the expansion of the communication infrastructure.

An AARA Grant from the U.S. Department of Energy has substantially reduced Mohave's investment, making it possible to move forward with our Smart Grid technology and implementation.

## SAVE Big Money!

Welcome Co-op Connect  
Cardholders

Touchstone Energy cooperatives are helping their members save. Visit often as coupons change daily.



### Not Just Prescriptions But More

Savvy shoppers can save big with their favorite coupons at their favorite stores and with daily online specials. It's another way Mohave Electric helps you save.

Print your favorite coupons at:  
[www.connections.coop](http://www.connections.coop)

### Welcome New

Co-op Connections Businesses

Abstract Storage

Colorado River Tees, LLC

LeZaria

Mohave Valley Property Management

NuYu Medical Weight Loss Center

Rainbow Tile & Carpet

The Mail Room Express

The Southwest Financial Center

### UPDATE YOUR ACCOUNT

Is the information on your MEC account current?

It's easy to forget to update your account information but important to stay current.

To update your account information, call Member Services at (928) 763-1100 or online at:

[www.mohaveelectric.com](http://www.mohaveelectric.com)

and click on **Contact Us** or **Mohave E-Bill**.

**Keep Your Information Current**

**So We Can Keep You Current**



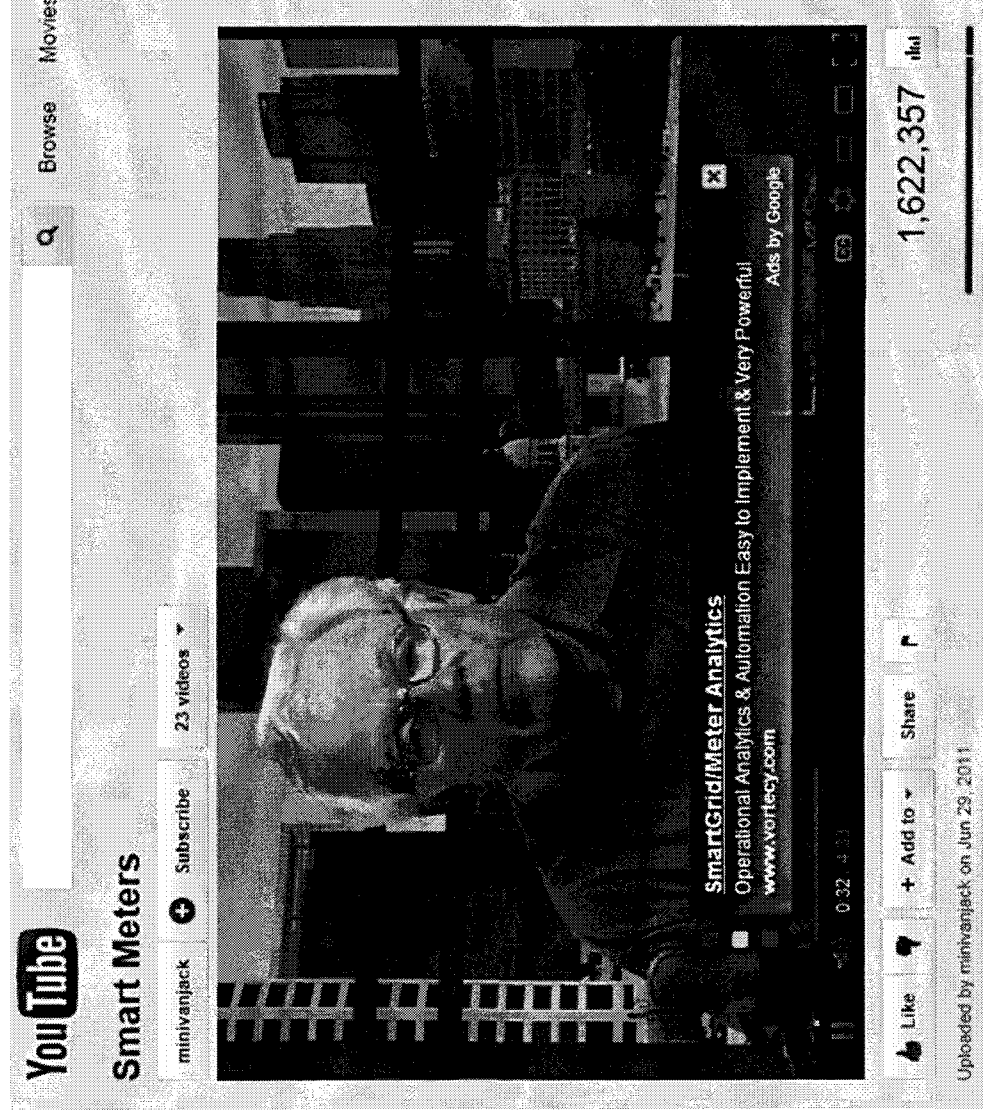
Helping Members Use Energy Wisely!

# March 2011

## Newsletter article

### mailed as bill insert

Internet YouTube posting brings questions from members because of misinformation about meters





# Form letter from YouTube

MEC received a few of these and responded to members with accurate information

Use the letter below to forbid smart meter installation (or modify the letter to demand the meter be removed).

From:  
Energy Customer's Name  
Street Address  
City State Zip

To:  
Energy Provider  
Street Address  
City State Zip

Date of letter

NOTICE OF NO CONSENT TO TRESPASS AND SURVEILLANCE, NOTICE OF LIABILITY

Dear (Energy Provider) and all agents, officers, employees, contractors and interested parties,

Dear (Energy Provider) and all agents, officers, employees, contractors and interested parties,

If you intend to install a "Smart Meter" or any activity monitoring device at the above address, you and all other parties are hereby denied consent for installation and use of all such devices on the above property. Installation and use of any activity monitoring device is hereby refused and prohibited.

Informed consent is legally required for installation of any surveillance device and any device that will collect and transmit private and personal data to undisclosed and unauthorized parties for undisclosed and unauthorized purposes. Authorization for sharing of personal and private information may only be given by the originator and subject of that information. That authorization is hereby denied and refused with regard to the above property and all its occupants. "Smart Meters" and digital meters violate the law and cause endangerment to residents by the following factors:

1. They individually identify electrical devices inside the home and record when they are operated causing invasion of privacy.
2. They monitor household activity and occupancy in violation of rights and domestic security.
3. They transmit wireless signals which may be intercepted by unauthorized and unknown parties. Those signals can be used to monitor behavior and occupancy and they can be used by criminals to aid criminal activity against the occupants.
4. Data about occupant's daily habits and activities are collected, recorded and stored in permanent databases which are accessed by parties not authorized or invited to know and share that private data by those who's activities were recorded.

5. Those with access to the smart meter databases can review a permanent history of household activities complete with calendar and time-of-day metrics to gain a highly invasive and detailed view of the lives of the occupants.
6. Those databases may be shared with, or fall into the hands of criminals, blackmailers, corrupt law enforcement, private hackers of wireless transmissions, power company employees, and other unidentified parties who may act against the interests of the occupants under metered surveillance.
7. "Smart Meters" are, by definition, surveillance devices which violate Federal and State wiretapping laws by recording and storing databases of private and personal activities and behaviors without the consent or knowledge of those people who are monitored.
8. It is possible for example, with analysis of certain "Smart Meter" data, for unauthorized and distant parties to determine medical conditions, sexual activities, physical locations of persons within the home, vacancy patterns and personal information and habits of the occupants.
9. Your company has not adequately disclosed the particular recording and transmission capabilities of the smart meter, or the extent of the data that will be recorded, stored and shared, or the purposes to which the data will and will not be put.
10. Electromagnetic and Radio Frequency energy contamination from smart meters exceeds allowable safe and healthful limits for domestic environments as determined by the EPA and other scientific programs.



I forbid, refuse and deny consent of any installation and use of any monitoring, eavesdropping, and surveillance devices on my property, my place of residence and my place of occupancy. That applies to and includes "Smart Meters" and activity monitoring devices of any and all kinds. Any attempt to install any such device directed at me, other occupants, my property or residence will constitute trespass, stalking, wiretapping and unlawful surveillance and endangerment of health and safety, all prohibited and punishable by law through criminal and civil complaints. All persons, government agencies and private organizations responsible for installing or operating monitoring devices directed at or recording my activities, which I have not specifically authorized in writing, will be fully liable for a fee of \$100,000.00 for any violations, intrusions, harm or negative consequences caused or made possible by those devices whether those negative consequences are provided by "law" or not.

This is legal notice. After this delivery the liabilities listed above may not be denied or avoided by parties named and implied in this notice. Civil Servant immunities and protections do not apply to the installation of smart meters due to the criminal violations they represent.

Notice to principal is notice to agent and notice to agent is notice to principal.  
All rights reserved.

Signature

# **What are the questions and concerns about AMI meters?**

- Does the meter see inside my home?
- Can the meter turn off my air conditioner?
- I have concerns about RF and wireless emissions.

# Overcoming Misinformation

- Does the meter see inside my home?

No, the meter collects only aggregate energy consumption.

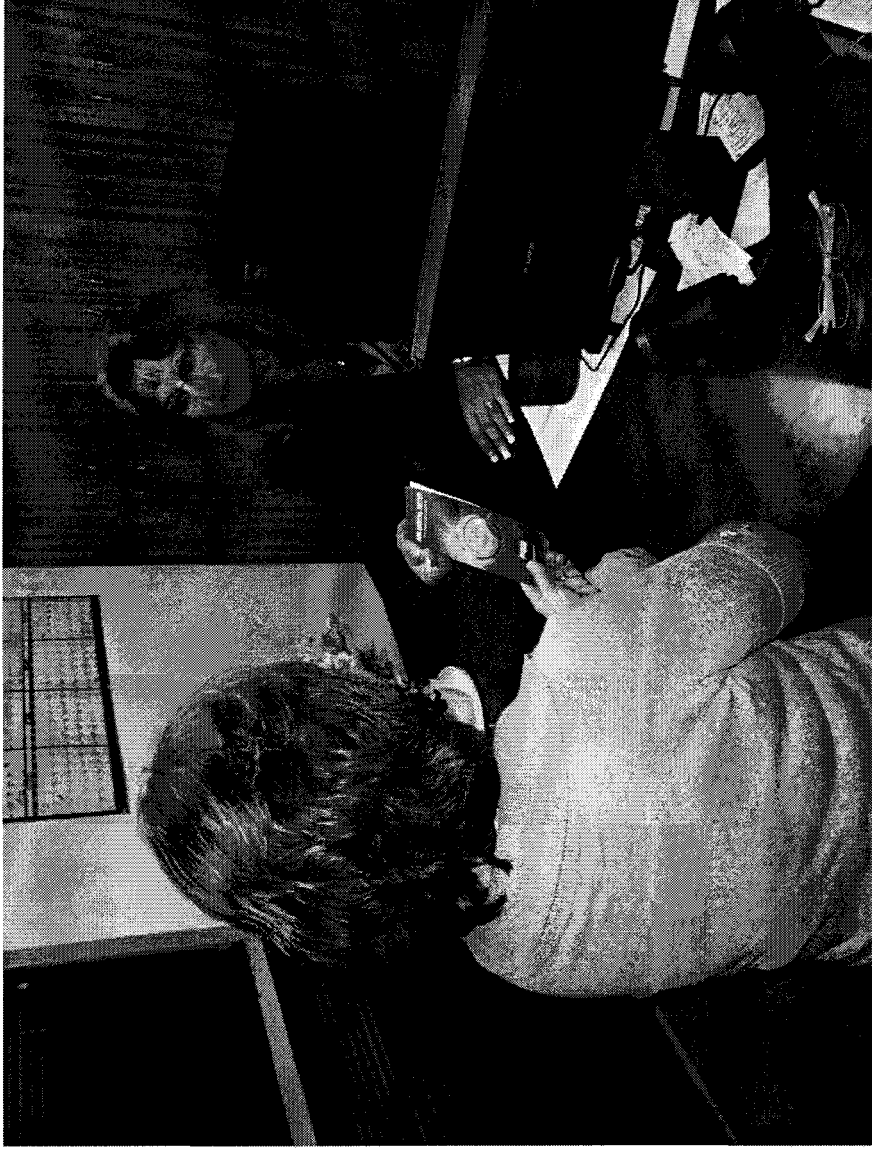
- Can the meter turn off my air conditioner?

No, the meter can not control appliances

- I have concerns about RF and wireless emissions

MEC's AMI meters are NOT wireless. The meter reading is communicated over the power line, or hard wired, and there are no RF emissions.

# How do we respond to questions?



Customer Service Manager answers questions  
about AMI Meters



# How do we respond to questions?

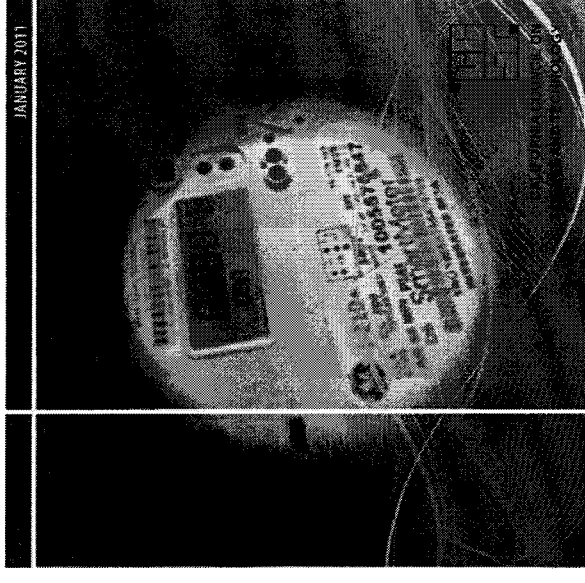


Operations Supervisor meets with members at their home

# How do we respond to questions?

- Information provided on website
  - FAQ's
  - Reports on Smart Meter
    - California Council on Science and Technology
    - Utilities Telecom Council

HEALTH  
IMPACTS OF  
RADIO FREQUENCY  
FROM  
SMART METERS



<http://ccst.us/publications/2011/2011smart.php>

# How do we respond to questions?

The CCST Smart Meter Project Team suggests alternative configurations such as wired where wireless meters are a concern to consumers

Health Impacts of Radio Frequency from Smart Meters  
Response to Assembly Members Huffman and Manning

California Council on Science and Technology

January 2011

KEY REPORT FINDINGS	OTHER CONSIDERATIONS
<ol style="list-style-type: none"><li>1. Wireless smart meters, when installed and properly maintained, result in much smaller levels of radio frequency (RF) exposure than many existing common household electronic devices, particularly cell phones and microwave ovens.</li><li>2. The current FCC standard provides an adequate factor of safety against <i>known thermally</i> induced health impacts of existing common household electronic devices and smart meters.</li><li>3. To date, scientific studies have not identified or confirmed negative health effects from <i>potential non-thermal</i> impacts of RF emissions such as those produced by existing common household electronic devices and smart meters.</li><li>4. Not enough is currently known about potential non-thermal impacts of radio frequency emissions to identify or recommend additional standards for such impacts</li></ol>	<p>Smart electricity meters are a key enabling technology for a "smart grid" that is expected to become increasingly clean, efficient, reliable, and safe at a potentially lower cost to the consumer. The CCST Smart Meter Project Team offers the following for further consideration by policy makers, regulators and the utilities. We appreciate that each of these considerations would likely require a cost/benefit analysis. However, we feel they should be considered as the overall cumulative exposure to RF emissions in our environment continues to expand.</p> <ol style="list-style-type: none"><li>1. As wireless technologies of all types increase in usage, it will be important to: (a) continue to quantitatively assess the levels of RF emissions from common household devices and smart meters to which the public may be exposed; and (b) continue to investigate potential thermal and non-thermal impacts of such RF emissions on human health.</li><li>2. Consumers should be provided with clearly understood information about the radiofrequency emissions of all devices that emit RF including smart meters. Such information should include intensity of output, duration and frequency of output, and, in the cases of the smart meter, pattern of sending and receiving transmissions to and from all sources.</li><li>3. The California Public Utilities Commission should consider doing an independent review of the deployment of smart meters to determine if they are installed and operating consistent with the information provided to the consumer.</li><li>4. Consideration could be given to alternative smart meter configurations (such as wired) in those cases where wireless meters continue to be concern to consumers.</li></ol>



# How do we respond to questions? With a letter



Dear Member:

For a number of reasons there are questions being asked about the type of electric meters being used today to help deliver more efficient energy to members. MEC understands the concern of members for the potential for any type of new equipment to invade privacy and either transmit control signals beyond the meter and into the home, or collect detailed usage information from within the home back through the meter.

Please understand that the new MEC digital AMI meters do not collect any additional member energy information different from the existing meters or metering system that are already in place, the new meters are just more efficient. They are not designed to be capable presently nor in the future of monitoring specific appliance or equipment consumption of any type in the members' residence. The MEC system was designed and selected in part to prevent this intrusive monitoring from occurring or being able to occur. The meters and the installed support AMI system as designed and constructed simply will not and cannot be made to monitor, collect or control what any member does with its electricity inside the home.

The system does everything your existing meter does with two exceptions, it no longer transmits the information wireless and instead uses a wired system to send the meter reading of electric usage to MEC, and the system allows remote meter reading just of electric usage from a larger distance than the existing meters. Our web site provides information about issues and safety regarding wireless transmission from an independent California study if you are interested in further information on this issue.

Remote meter reading is an important component of future cost savings and efficiencies for the Cooperative, and ultimately for the members. The technology also provides the infrastructure for cost reducing rate programs required by the Arizona Corporation Commission (ACC), and often requested by members. These cost reducing rate programs are optional to the members, but are dependent on the new technology. Prevention of the implementation of the digital AMI system will result in additional costs to MEC, and ultimately for the members. It is quite possible, and most probable, that any 'opt out' program for individual members will include assigning all or a portion of those additional costs to the member preventing implementation or opting out. It is MEC's contention that the costs for prevention of implementing the technology be borne by the members demanding such.

It is also important to note that the existing metering infrastructure and meters are becoming obsolete, parts and repair are being phased out by the vendors, and vendors are producing new versions of the old-type meters. We will be faced with replacing existing meters with new technology in any case.

Mohave's Smart Meters do not use wireless technology. Instead the meters communicate by way of a wired (not wireless) system through the power lines. In fact, for Mohave members, the new meters actually reduce radio emissions. The January 2011 study on smart meters performed by the California Council on Science and Technology (CCST) demonstrates that there is no proven causal connection between the RFs produced by radio based AMI systems and health. MEC wired technology decision was based partially on this conclusion. Please visit our website at [www.mohaveelectric.com](http://www.mohaveelectric.com) to view reports and studies on smart meter systems.

We hope that this is a sufficient response and an affirmation that Mohave Electric does take all health concerns, plus preserving the integrity of your property and your right to privacy very seriously.

Sincerely,  
MOHAVE ELECTRIC COOPERATIVE, INC.

In nearly every case,  
after talking with the  
member, they were  
comfortable that their  
questions and  
concerns were based  
on misinformation and  
there was no longer an  
issue with exchanging  
their meter

ORIGINAL

Jennifer Ybarra



0000130675

E-01750A-11-0136

From: Joe Anderson  
Sent: Friday, September 23, 2011 8:35 AM  
To: Newman-Web  
Subject: Electric rate increases

September 23, 2011

Corporation Commissioners Newman,

My name is Joe Anderson and I live in the Mohave Electric Cooperative service area and have been for the past 34 years. Even though I do not like it, I understand the Cooperatives current rate increase proposal and the reasons for it. There are a couple issues that I would like to address, one of which is directly related to this issue.

I do not agree with placing fixed costs into the energy rate. I believe that fixed costs need to be de-coupled and added to all Coop members equally because that would be fairer. It appears that the majority of Mohave Electric Coop's shortfall right now is in its operations budget, which is directly related to the fixed costs. Please make these costs, collected under the Customer Charge, be equal to all members/users.

My other concern is that about the negative publicity that is going around about smart meters. Do people not realize that similar technology meters have been attached to their gas meters years ago and most people are already connected to utilities via phone line or cable and/or internet? Why all of a sudden a big problem with another utility moving forward in technology?

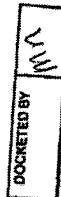
Allowing people to 'opt out' of this progressing system would only sustain current operations, which due to the increases in costs, would increase costs overall. Those costs would have to be absorbed, not just by them but by all members, which again would not be fair. Please research this issue more to see the true reality before allowing people to be steered to an uneducated and more expensive way of doing business.

Thank you for your considerations in these matters.

Sincerely,  
Joe Anderson

Arizona Corporation Commission  
**DOCKETED**

OCT 24 2011



AZ CORP COMMISSION  
DOCKET CONTROL

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RECEIVED

# Members support AMI meters

Mohave Electric Cooperative, Inc. E-01750A-11-0136

October 3, 2011

ORIGINAL



Corporation Commissioners,

My name is Greg Raymond and I live in the Mohave Electric Cooperative service area. Even though I do not like it, I understand the Cooperatives current rate increase proposal and the reasons for it. There are a couple issues that I would like to address, one of which is directly related to this issue.

I do not agree with placing fixed costs into the energy rate. I believe that fixed costs need to be de-coupled and added to all Coop members equally because that would be fairer, hence the coop concept. It appears that the majority of Mohave Electric Coop's shortfall right now is in its operations budget, which is directly related to the fixed costs. Please make these costs, collected under the Customer Charge, be equal to all members/users. The electricity is there for all to use and connect to, please don't place the burden of these costs on a use based system, the more you use the more you pay, for these operational costs. these costs should be shared equally amongst all users.

My other concern is that about the negative publicity that is going around about smart meters. Do people not realize that similar technology meters have been attached to their gas meters years ago and most people are already connected to utilities via phone line or cable and/or internet? Why all of a sudden a big problem with another utility moving forward in technology? The electrical system of this country needs to modernize and get into the tech game, smart meters do this. I can now watch my daily usage and adjust if need be because of smart meter technology. Please do not allow a few paranoid people disrupt the deployment of this wonderful technology.

Allowing people to 'opt out' of this progressing system would only sustain current operations, which due to the increases in costs, would increase costs overall. Those costs would have to be absorbed, not just by them but by all members, which again would not be fair. Please research this issue more to see the true reality before allowing people to be steered to an uneducated and more expensive way of doing business.

Thank you for your considerations in these matters. Should you like to discuss this further please feel free to call me [REDACTED]

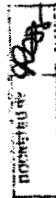
Sincerely,

Greg Raymond

Arizona Corporation Commission

DOCKETED

OCT 5 2011



RECEIVED

2011 OCT -5 A 11:35

AZ CORP COMMISSION  
DOCKET CONTROL

Letter of Support

# ***June 2011***

## **Membership Annual Meeting**

- Display table (meter and brochures)
- Opportunity to talk to members about AMI Meters and answer questions





# **CEO Presentation at Annual Meeting provided opportunity to answer questions about AMI meters**



# ***August/September 2011***

Town Hall Meetings on rate filing provided an opportunity for CEO to answer questions about AMI Meters.

- August 16 - River Valley HS – Mohave Valley
- August 18 - Mohave HS – Bullhead City
- August 25 - Mohave Community College - Bullhead City
- September 21 – Cedar Hills Elementary – Kingman

# October 2011- present

## Phase 2

Ongoing notification of meter exchange working areas published in local newspaper

### MEC continues installing new meters

CONTRIBUTED

**BULLHEAD CITY** — Mohave Electric Cooperative crews are installing new Advanced Metering Infrastructure meters in Bullhead City and Fort Mohave.

Meter technicians will be working in the following areas for approximately four weeks:

► West of Highway 95 from Sterling Road, south to Aztec Road in Fort

Mohave.

► South from Aztec Road to Boundary Cone Road on both sides of Highway 95 in Fort Mohave.

► Scattered installations throughout Bullhead City

The meter technicians will be in vehicles marked with the Mohave Electric Cooperative logo and will have photo ID. They will knock on your door to let

you know that they are there to install your new meter, but you do not need to be present for the meter change.

The meter technician will not need access to your home or business other than to the electric meter location. Anyone asking to come into your home, or without Mohave Electric authorized credentials, should be reported to law enforcement.

For updates on Mohave's Smart Grid, visit [www.mohaveelectric.com](http://www.mohaveelectric.com) and click the Smart Grid button.

# ***October 2011 – present***

## ***Phase 2 Meter Exchanges***

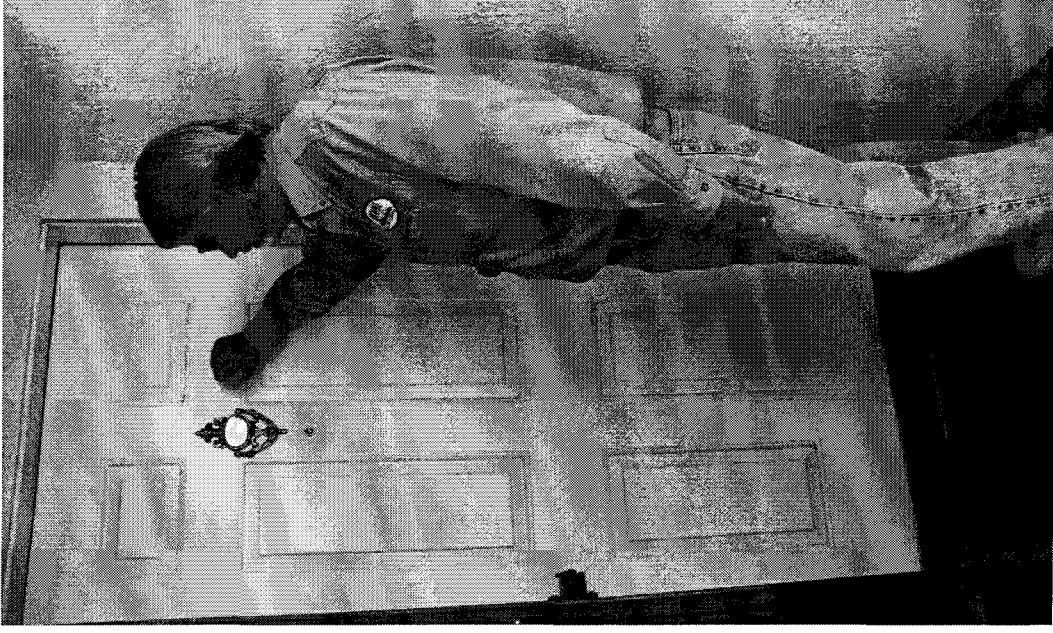
**Notification by phone call delivered 3 -7 days  
before exchange.**

This is an important message from Mohave Electric Cooperative about your new electric meter. Mohave Electric is in the process of replacing old, dial mechanical meters with new digital meters. We will be working in your area during the next two weeks. When we change the meter, your power will be briefly interrupted, but will be restored in a matter of minutes. Meter technicians will have ID authorizing them as employees for Mohave Electric. If you have any questions about this process, please call Mohave Electric at 928-763-1100.



# ***Day of Meter Exchange***

Meter technician  
knocks on door to  
notify member that  
he is there to  
exchange the meter



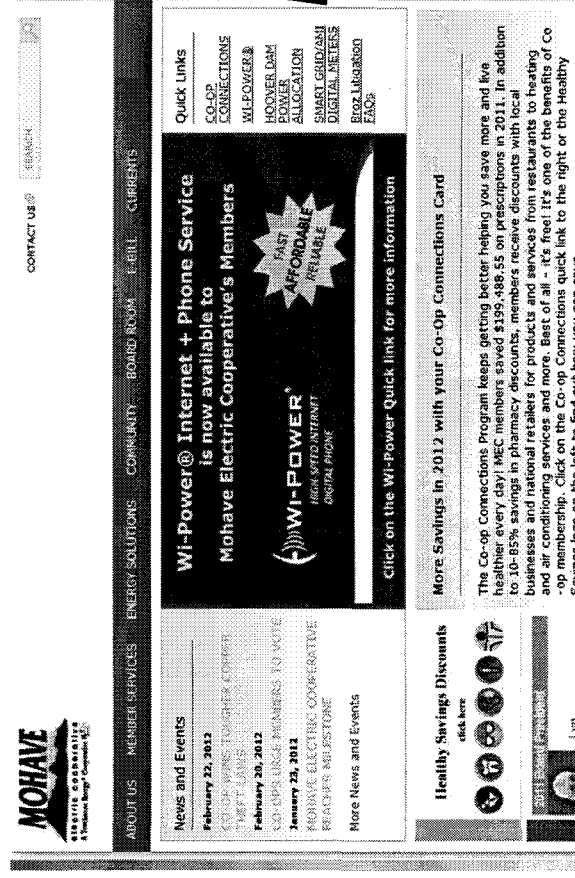
# ***October 2011***

News story on local TV station informs  
members about meter exchanges



# MEC Website ongoing updates

- FAQ's
- AMI meter brochure
- News releases on Smart Grid and AMI meters
- Meter exchange schedule





## ***May 2012***

- 31,000 meters installed
- Full meter exchange of 35,000 meters expected by December 2012

# ***Ongoing Member Education Program***

MEC's program is proactive and responsive to provide information, educate and familiarize members about AML.

Future District and Annual Member Meetings

- June 18 – Mohave Valley
- June 19 – Bullhead City
- June 20 – Fort Mohave
- June 22 – Mohave Valley



**MOHAVE ELECTRIC COOPERATIVE**